

assembled inner and outer tubular elements, said tubular elements provided with end closure means at the outward ends of said tubular elements; said outer tubular element provided with an inwardly projecting collar at its inward open end; said inner tubular element provided with an outwardly projecting collar at its inward open end; said collars
5 adapted to prevent the withdrawal of said inner tubular element from said outer tubular element when said tubular elements are telescopically assembled.

3. (DELETED) The device of claim 2 wherein a compression spring provides an extending force when installed within said telescopically assembled inner and outer
10 tubular members, the ends of said spring acting against said closure means, said extending force urging said tubular elements into a maximum extended position, said extended position limited by contact between said collars.

4. (DELETED) The device of claim 3 wherein said end closure means of said outer
15 tubular member comprises an end cap; said end cap including a threaded sleeve section adapted to mate with a threaded portion at the outward end of said tubular element; said end cap adapted to allow for the insertion into said tubular members of compression springs of varying spring rates.

20 5. (DELETED) The device of claim 4 wherein said varying spring rates are in the ranges of 11 to 15 lb and 17 to 21 lb per inch of compression.

6. (DELETED) The device of claim 5 wherein said end closure means of said inner
25 tubular member is provided with a threaded sleeve portion adapted to mate with an external thread on the outside of said inner tubular member; said threaded sleeve adapted to provide adjustment means to vary the length between said end closure means.

7. (DELETED) The device of claim 6 wherein said end closure means of said inner
30 tubular member includes a threaded socket; said socket adapted for the attachment of a support pad adapted to fit against the shoulder of a user; said support pad provided with a resilient surface covering.

8. (DELETED) The device of claim 7 wherein said socket is adapted for the attachment of resilient pad; said resilient pad adapted to fit into the hand of a user.

5 9. (DELETED) A device for the exercise of the musculature of the upper arm, said device adapted to provide a resistance force to the rotational movement about the elbow of the forearm towards the upper arm and wherein said rotational movement lies between the limits of approximately an angle of 90.degree. at the elbow and that angle between said forearm and said upper arm limited by contact between said forearm and said upper arm.
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10. (DELETED) The device of claim 9 wherein said device comprises telescopically assembled inner and outer tubular elements, said tubular elements provided with end closure means at the outward ends of said tubular elements; said outer tubular element
15 provided with an inwardly projecting collar at its inward open end; said inner tubular element provided with an outwardly projecting collar at its inward open end; said collars adapted to prevent the separation of said inner tubular element from said outer tubular element when said tubular elements are telescopically assembled.

20 11. (DELETED) The device of claim 10 wherein said end closure means at the outward end of said outer tubular element is provided with a piston rod extending from said end closure means substantially the length of said outer tubular member, said piston rod ending in a piston adapted for sliding sealing movement in said inner tubular member.

25 12. (DELETED) The device of claim 11 wherein said end closure means of said outer tubular member is in the form of a cap; said cap including a threaded sleeve; said sleeve mating with a threaded outward end portion of said outer tubular member; said sleeve adapted to provide adjustment of the length between said end closure means when said tubular members are in a fully extended position.

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13. (DELETED) The device of claim 12 wherein a compression spring is installed between said cap and the inwardly projecting collar of said inner tubular member; said spring providing an outward urging force biased to return said tubular members to a fully extended position.

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14. (DELETED) The device of claim 13 wherein said inner tubular member is provide with an air flow control valve positioned at said outward end of said inner tubular member.

10 15. (DELETED) The device of claim 14 wherein said air control valve is adapted to variably restrict the rate of air flow from said inner tubular member when said piston is driven towards said outward end of said tubular member.

15 16. (DELETED) The device of claim 15 wherein said end closure means are provided with resilient pads.

17. (DELETED) The device of claim 16 wherein one of said end closure means is provided with strapping means adapted to secure the device to the wrist of a user.

20 18. (DELETED) The device of claim 17 wherein the overall length of said device when said outer and said inner tubular members are in a fully extended position is in the range of 130 to 180 mm.

25 19. (DELETED) A device for the exercise of the musculature of the upper arm, said device adapted to provide a resistance force to the rotational movement about the elbow of the forearm towards the upper arm and wherein said rotational movement lies between the limits of approximately an angle of 90.degree. at the elbow and that angle between said forearm and said upper arm limited by contact between said forearm and said upper arm.

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20. (DELETED) The device of claim 19 wherein said device comprises a tubular

member containing a compression spring, said compression spring acting on a piston and piston rod coaxial with said tubular member so as to urge said piston and said piston rod into a maximum extended position.

- 5 21. (DELETED) The device of claim 20 wherein the installed length of said compression spring is adjustable so as to vary the compressive force exerted by said spring on said piston and said piston rod; said installed length defined as the length of said spring when said piston and said piston rod are in said maximum extended position.
- 10 22. (DELETED) The device of claim 20 wherein said tubular member is provided with a shoulder yoke, said yoke adapted to support said device at the shoulder of a user; and wherein said piston rod is provided at its outer end with a wrist yoke, said yoke adapted to support said device at the wrist of said user.
- 15 23. (DELETED) The device of claim 22 wherein said shoulder yoke is provided with adjustment means adapted to vary the distance between said shoulder yoke and said wrist yoke.
- 20 24. (DELETED) The device of claim 22 wherein said wrist yoke is provided with strapping means adapted to secure said yoke to the wrist of a user.
- 25 25. (DELETED) The device of any of claims 19 to 24 wherein said rotational movement is approximately restricted between a first angle α and a second angle equal to or less than $\alpha/2$.
- 30 26. (DELETED) A method for the exercise of the musculature of the upper arm, said method including the steps of; (e) the use of an exercise device providing a resistance force to the rotational movement of the forearm towards the upper arm, said resistance force acting along the line between the shoulder and the wrist of a user; (f) adjusting said device so that when in a relaxed state said device restricts the angle at the elbow of said user to an angle equal to or less than 90 degrees; (g) adjusting said device so that the

resistance force is within the capacity of the user to overcome in the rotational movement of the forearm towards the upper arm; said adjustment being effected by means of springs of varying spring rate or by means of varying the installed length of a compression spring; (h) repeated reciprocal rotational movements of the forearm towards the upper arm.

Delete claim 1-26

Claims 27 - 53 Added

Revised Claims:

27 (NEW) A device for the exercise of the musculature of the upper arm, the device comprising: telescopically assembled co operating inner and outer tubular elements, each said tubular elements having end closure means at their outer ends; said outer tubular element including an inwardly projecting collar at its inward open end;

15 said inner tubular element provided with an outwardly projecting collar at its inward open end; said collars co operating to prevent the withdrawal of said inner tubular element from said outer tubular element when said tubular elements operate telescopically;

20 said device moveable between a first state in which the telescopic elements are fully extended and a second state in which the telescopic elements are compressible against a bias inside the device to provide a resistance force to rotational movement about the elbow of a forearm in a direction towards an upper arm of the same arm; wherein the device is of a length which allows engagement of one end with a hand of a user and the other end with an upper part of the same arm such that the user can exercise one arm by urging the hand against the upper arm without use of the other arm.

28 (NEW) A device according to claim 27 wherein said rotational movement extends between the limits of approximately an angle of 90 degrees formed by the forearm and upper arm and a smaller angle between said forearm and said upper arm limited by contact between said forearm and said upper arm.

29. (NEW) A device according to claim 28 wherein the bias is a compression spring which naturally biases the telescopic elements to their maximum relative extent.
- 5 30 (NEW) A device according to claim 29 wherein, ends of said spring act against said closure means to provide the bias to maximum extent.
- 31 (NEW) A device according to claim 30 wherein said maximum extended position, is limited by contact between said collars.
- 10 32 (NEW) A device according to claim 31 wherein said end closure means of said outer tubular member comprises an end cap having a threaded sleeve section which mates with a threaded portion at the end of said tubular element.
- 15 33 (NEW) A device according to claim 32 wherein the end cap on the outer tubular element is removeable to allow access to an interior passage in said device which receives the spring.
- 20 34 (NEW) A device according to claim 33 wherein, the level of force resistance exerted by the device can be adjusted by substituting one biasing spring with another of a different compression resistance.
- 25 35 (NEW) A device according to claim 34 wherein said end closure means of said inner tubular member is provided with a threaded portion adapted to mate with an external thread on the outside of said inner tubular element; said threaded portion providing adjustment means to enable variation of length between said end closure means.
- 30 36 (NEW) A device according to claim 35 wherein said end closure means of said inner tubular member includes a threaded socket; said socket adapted for the attachment of a resilient support pad adapted to fit against the shoulder or hand of a user.

- 37 (NEW) A device according to claim 10 wherein, said end closure means at the outward end of said outer tubular element is provided with a piston rod extending from said end closure means substantially the length of said outer tubular member.
- 5 38 (NEW) A device according to claim 37 wherein said piston rod terminates in a piston adapted for sliding in said inner tubular member.
- 39 (NEW) A device according to claim 38 wherein the piston provides sealing of said telescopic elements.
- 10 40 (NEW) A device according to claim 39 wherein the compression spring is installed between said end cap and the inwardly projecting collar of said inner tubular member.
- 15 41 (NEW) A device according to claim 40 wherein, said inner tubular member includes an air flow control valve positioned at said outward end of said inner tubular member.
- 42 (NEW) A device according to claim 41 wherein, said air control valve is adapted to variably restrict the rate of air flow from said inner tubular member when said piston is driven towards said outward end of said tubular member.
- 20 43 (NEW) A device according to claim 42 wherein said end closure means are provided with resilient pads.
- 25 44 (NEW) A device according to claim 43 wherein one of said end closure means is provided with strapping to secure the device to the wrist of a user.
- 45 (NEW) A device according to claim 44 wherein the overall length of said device when said outer and said inner tubular members are in a fully extended position is within in the range of 130 to 180 mm.
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- 46 (NEW) A device according to claim 45 wherein said compression spring acts on a piston and piston rod coaxial with said tubular member so as to urge said piston and said piston rod into a maximum extended position.
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- 47 (NEW) A device according to claim 46 wherein an installed length of said compression spring is adjustable so as to vary a compressive force exerted by said spring on said piston and said piston rod; wherein said installed length is the length of said spring when said piston and said piston rod are in said maximum extended position.
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- 48 (NEW) A device according to claim 47 wherein said tubular member is provided with a shoulder yoke, to support said device at the shoulder of a user; and a wrist yoke at an outer end of said piston rod to provide support for said device at the wrist of said user.
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- 49 (NEW) A device according to claim 48 wherein said shoulder yoke is provided with adjustment means adapted to vary the distance between said shoulder yoke and said wrist yoke.
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- 50 (NEW) A device according to claim 49 wherein, said wrist yoke is provided with strapping means adapted to secure said yoke to the wrist of a user.
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- 51 (NEW) A device according to claim 50 wherein spring compression loadings required to compress the spring are in the range of 11 to 15 lb per inch of compression.
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- 52 (NEW) A device according to claim 50 wherein spring compression loadings required to compress the spring are in the range of 17 to 21 lb per inch of compression.
- 53 (NEW) A method for the exercise of the musculature of the upper arm, using a device comprising : telescopically assembled co operating inner and outer tubular elements, each said tubular elements having end closure means at their outer ends;

- said outer tubular element including an inwardly projecting collar at its inward open end;
said inner tubular element provided with an outwardly projecting collar at its inward open
end; said collars co operating to prevent the withdrawal of said inner tubular element
from said outer tubular element when said tubular elements operate telescopically; said
5 method comprising including the steps of: (a) exerting an axial load on the device to
induce compression in the device; such that the device resists rotational movement of a
forearm towards an upper arm of the same arm, said resistance force acting along the line
between the shoulder and the wrist of a user;
(b) relaxing said axial load on said device so that said device restricts the angle at the
10 elbow of said user to an angle about or less than 90 degrees;
(c) adjusting said device so that the resistance force is within the capacity of the user to
overcome by the rotational movement of the forearm towards the upper arm; said
adjustment being effected by means of springs of varying spring rate or by means of
varying the installed length of a compression spring;
15 (d) repeated reciprocal rotational movements of the forearm towards the upper arm to
exercise the arm of the user.

Claims 27 – 53 pending in application.

Delete claims 27 - 53

Add claims 54 - 73

- 25 54 [27](Amended) A device for the exercise of the musculature of the upper arm, the
device comprising: telescopically assembled co operating inner and outer tubular
elements, each said tubular elements having end closure means at their outer ends; said
outer tubular element including an inwardly projecting collar at its inward open end;
said inner tubular element provided with an outwardly projecting collar at its inward open
30 end; said collars co operating to prevent the withdrawal of said inner tubular element
from said outer tubular element when said tubular elements operate telescopically;
said device moveable between a first state in which the telescopic elements are fully
extended and a second state in which the telescopic elements are compressible against a

bias inside the device to provide a resistance force to rotational movement about the elbow of a forearm in a direction towards an upper arm of the same arm; wherein the device is of a length which allows engagement of one end with a hand of a user and the other end with an upper part of the same arm such that the user can exercise one arm by urging the hand against the upper arm without use of the other arm through an angle; [.]

5 [28 (deleted) A device according to claim 27 wherein said rotational movement extends between the limits]
of approximately an angle of 90 degrees formed by the forearm and upper arm;
[and a smaller angle between said forearm and said upper arm limited by contact
10 between said forearm and said upper arm.]

[29. (deleted) A device according to claim 28]
wherein, the bias is a compression spring which naturally biases the telescopic elements to their maximum relative extent; the maximum extended position, limited by contact
15 between said collars;

[30 (deleted) A device according to claim 29]
wherein, ends of said spring act against said closure means to provide the bias to maximum extent; and [.]

20 [31 (deleted) A device according to claim 30 wherein said is.]

[32 (deleted) A device according to claim 31 wherein]
said end closure means of said outer tubular member comprising [es] a [n] removable
25 end cap having a threaded sleeve section which mates with a threaded portion at the end of said tubular element; [.] and which

[33 (Deleted) A device according to claim 32 wherein the end cap on the outer tubular element is removeable to]
allows access to an interior passage in said device which receives the spring; [.] wherein,
30 the level of force resistance exerted by the device can be adjusted by substituting one biasing spring with another of a different compression resistance.

55 [37](Amended) A device according to claim 54 [10] wherein, said end closure means
at the outward end of said outer tubular element is provided with a piston rod extending
5 from said end closure means substantially the length of said outer tubular member.

56 [38](Amended) A device according to claim 55 [37] wherein said piston rod
terminates in a piston adapted for sliding in said inner tubular member.

10 57 [39](Amended) A device according to claim 56[38] wherein the piston provides
sealing of said telescopic elements.

58 [40] (Amended) A device according to claim 57 [39] wherein the compression spring
is installed between said end cap and the inwardly projecting collar of said inner tubular
15 member.

59 [41](Amended) A device according to claim 58 [40] wherein, said inner tubular
member includes an air flow control valve positioned at said outward end of said inner
tubular member.

20 60 [42] (Amended) A device according to claim 59 [41] wherein, said air control
valve is adapted to variably restrict the rate of air flow from said inner tubular member
when said piston is driven towards said outward end of said tubular member.

25 61 [43] (Amended) A device according to claim 60 [42] wherein said end closure
means are provided with resilient pads.

62 [44] (Amended) A device according to claim 61 [43] wherein one of said end
closure means is provided with strapping to secure the device to the wrist of a user.

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63 [45] (Amended) A device according to claim 62 [44] wherein the overall length of said device when said outer and said inner tubular members are in a fully extended position is within in the range of 130 to 180 mm.

- 5 64 [46] (Amended) A device according to claim 63 [45] wherein said compression spring acts on a piston and piston rod coaxial with said tubular member so as to urge said piston and said piston rod into a maximum extended position.

- 10 65 [47] (Amended) A device according to claim 64 [46] wherein an installed length of said compression spring is adjustable so as to vary a compressive force exerted by said spring on said piston and said piston rod; wherein said installed length is the length of said spring when said piston and said piston rod are in said maximum extended position.

- 15 66 [48] (Amended) A device according to claim 65 [47] wherein said tubular member is provided with a shoulder yoke, to support said device at the shoulder of a user; and a wrist yoke at an outer end of said piston rod to provide support for said device at the wrist of said user.

- 20 67 [49] (Amended) A device according to claim 66 [48] wherein said shoulder yoke is provided with adjustment means adapted to vary the distance between said shoulder yoke and said wrist yoke.

- 25 68 [50] (Amended) A device according to claim 67 [49] wherein, said wrist yoke is provided with strapping means adapted to secure said yoke to the wrist of a user.

- 30 69 [51] (Amended) A device according to claim 68 [50] wherein spring compression loadings required to compress the spring are in the range of 11 to 21[15] lb per inch of compression.

5 70 [35] (Amended) A device according to claim 69 [34] wherein said end closure means of said inner tubular member is provided with a threaded portion adapted to mate with an external thread on the outside of said inner tubular element; said threaded portion providing adjustment means to enable variation of length between said end closure means.

10 71 [36] (Amended) A device according to claim 70 [35] wherein said end closure means of said inner tubular member includes a threaded socket; said socket adapted for the attachment of a resilient support pad adapted to fit against the shoulder or hand of a user.

 [52 (Deleted) A device according to claim 50 wherein spring compression loadings required to compress the spring are in the range of 17 to 21 lb per inch of compression.]

15 72 [53](Allowed) A method for the exercise of the musculature of the upper arm, using a device comprising : telescopically assembled co operating inner and outer tubular elements, each said tubular elements having end closure means at their outer ends; said outer tubular element including an inwardly projecting collar at its inward open end; said inner tubular element provided with an outwardly projecting collar at its inward open
20 end; said collars co operating to prevent the withdrawal of said inner tubular element from said outer tubular element when said tubular elements operate telescopically; said method comprising including the steps of; (a) exerting an axial load on the device to induce compression in the device; such that the device resists rotational movement of a forearm towards an upper arm of the same arm, said resistance force acting along the line
25 between the shoulder and the wrist of a user;
 (b) relaxing said axial load on said device so that said device restricts the angle at the elbow of said user to an angle about or less than 90 degrees;
 (c) adjusting said device so that the resistance force is within the capacity of the user to overcome by the rotational movement of the forearm towards the upper arm; said
30 adjustment being effected by means of springs of varying spring rate or by means of varying the installed length of a compression spring;

(d) repeated reciprocal rotational movements of the forearm towards the upper arm to exercise the arm of the user.

PROPOSED AMENDED CLAIMS UNANNOTATED

5 54 A device for the exercise of the musculature of the upper arm, the device comprising: telescopically assembled co operating inner and outer tubular elements, each said tubular elements having end closure means at their outer ends; said outer tubular element including an inwardly projecting collar at its inward open end; said inner tubular element provided with an outwardly projecting collar at its inward open end; said collars co operating to prevent the withdrawal of said inner tubular element from said outer tubular element when said tubular elements operate telescopically; said device moveable between a first state in which the telescopic elements are fully extended and a second state in which the telescopic elements are compressible against a bias inside the device to provide a resistance force to rotational movement about the elbow of a forearm in a direction towards an upper arm of the same arm; wherein the device is of a length which allows engagement of one end with a hand of a user and the other end with an upper part of the same arm such that the user can exercise one arm by urging the hand against the upper arm without use of the other arm through an angle of approximately an angle of 90 degrees formed by the forearm and upper arm; wherein, the bias is a compression spring which naturally biases the telescopic elements to their maximum relative extent; the maximum extended position, limited by contact between said collars; wherein, ends of said spring act against said closure means to provide the bias to maximum extent; and said end closure means of said outer tubular member comprising a removable end cap having a threaded sleeve section which mates with a threaded portion at the end of said tubular element and which allows access to an interior passage in said device which receives the spring; wherein, the level of force resistance exerted by the device can be adjusted by substituting one biasing spring with another of a different compression resistance.

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55 A device according to claim 54 wherein, said end closure means at the outward end of said outer tubular element is provided with a piston rod extending from said end closure means substantially the length of said outer tubular member.

5 56 A device according to claim 55 wherein said piston rod terminates in a piston adapted for sliding in said inner tubular member.

57 A device according to claim 56 wherein the piston provides sealing of said telescopic elements.

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58 A device according to claim 57 wherein the compression spring is installed between said end cap and the inwardly projecting collar of said inner tubular member.

59 A device according to claim 58 wherein, said inner tubular member includes an
15 air flow control valve positioned at said outward end of said inner tubular member.

60 A device according to claim 58 wherein, said air control valve is adapted to variably restrict the rate of air flow from said inner tubular member when said piston is driven towards said outward end of said tubular member.

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61 A device according to claim 60 wherein said end closure means are provided with resilient pads.

62 A device according to claim 61 wherein one of said end closure means is provided
25 with strapping to secure the device to the wrist of a user.

63 A device according to claim 61 wherein the overall length of said device when said outer and said inner tubular members are in a fully extended position is within in the range of 130 to 180 mm.

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- 64 A device according to claim 63 wherein said compression spring acts on a piston and piston rod coaxial with said tubular member so as to urge said piston and said piston rod into a maximum extended position.
- 5 65 A device according to claim 64 wherein an installed length of said compression spring is adjustable so as to vary a compressive force exerted by said spring on said piston and said piston rod; wherein said installed length is the length of said spring when said piston and said piston rod are in said maximum extended position.
- 10 66 A device according to claim 65 wherein said tubular member is provided with a shoulder yoke, to support said device at the shoulder of a user; and a wrist yoke at an outer end of said piston rod to provide support for said device at the wrist of said user.
- 15 67 A device according to claim 66 wherein said shoulder yoke is provided with adjustment means adapted to vary the distance between said shoulder yoke and said wrist yoke.
- 20 68 A device according to claim 67 wherein, said wrist yoke is provided with strapping means adapted to secure said yoke to the wrist of a user.
- 25 69 A device according to claim 68 wherein spring compression loadings required to compress the spring are in the range of 11 to 21 lb per inch of compression.
- 30 70 A device according to claim 69 wherein said end closure means of said inner tubular member is provided with a threaded portion adapted to mate with an external thread on the outside of said inner tubular element; said threaded portion providing adjustment means to enable variation of length between said end closure means.
- 71 A device according to claim 70 wherein said end closure means of said inner tubular member includes a threaded socket; said socket adapted for the attachment of a resilient support pad adapted to fit against the shoulder or hand of a user.

72 A method for the exercise of the musculature of the upper arm, using a device
comprising : telescopically assembled co operating inner and outer tubular elements, each
5 said tubular elements having end closure means at their outer ends;
said outer tubular element including an inwardly projecting collar at its inward open end;
said inner tubular element provided with an outwardly projecting collar at its inward open
end; said collars co operating to prevent the withdrawal of said inner tubular element
from said outer tubular element when said tubular elements operate telescopically; said
10 method comprising including the steps of; (a) exerting an axial load on the device to
induce compression in the device; such that the device resists rotational movement of a
forearm towards an upper arm of the same arm, said resistance force acting along the line
between the shoulder and the wrist of a user;
(b) relaxing said axial load on said device so that said device restricts the angle at the
15 elbow of said user to an angle about or less than 90 degrees;
(c) adjusting said device so that the resistance force is within the capacity of the user to
overcome by the rotational movement of the forearm towards the upper arm; said
adjustment being effected by means of springs of varying spring rate or by means of
varying the installed length of a compression spring;
20 (d) repeated reciprocal rotational movements of the forearm towards the upper arm to
exercise the arm of the user.

In view of the forgoing the applicant believes that the claim as amended are in condition
for allowance an outcome which is earnestly solicited.

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Respectfully Submitted.

DANNY ADCOCK